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Author(s): Chris Argyris

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# Some Limits of Rational Man

## Organizational Theory

Chris Argyris, *Harvard University*

Organizational theory in public administration may be undergoing an important transformation. The new critics find much administrative descriptive theory to be nonrelevant to many critical problems of organization. They suggest that the present theories are based on a concept of man, indeed a morality, that leads the scholar to conduct research that is, intentionally or unintentionally, supportive of the status quo (Marini 1971). The newer, critical writings are also concerned with individual morality, authenticity, human self-actualization. The scholars are not only asking what makes organizations more effective; they are concerned with the issues: For whom are organizations designed? How humane can organizations become and still be effective?

The new stirrings in public administration theory may be seen as part of a broader intellectual debate that has evolved in the field of organizational behavior. Scholars on both sides of the issue are in agreement that it is important to design organizations that are more effective. One side believes that this can be best accomplished through increasing rationality and descriptive research; the other on increasing the humane dimensions and therefore normative research. If history is any guide, the ultimate direction will be to develop administrative theory that integrates both of these points of view.

One step toward integration may be for scholars representing the human side of the enter-

■ An analysis of rational-man organizational theories (including the works of Simon, March, and Allison) suggests that they exclude variables that are important to their domain, are unable to make predictions about events central to their concern, and are supportive of the status quo. The role of descriptive and normative theories is explored. The suggestion is made that if the explanatory power of organizational theory and its relevancy are to be increased, a more complex and humanistic model of man and more normative research are required.

prise to reach across to show how rational-man models may be helpful in expanding and correcting their perspective. For example, the writer has criticized strongly many human relations practices as manipulation and control of people (Argyris 1957, pp. 139-162); T groups (1967, 1972 in press); and the effectiveness of organizational development (1971). A major criticism is their lack of including cognitive and intellectual variables that are relevant to human growth.

While working on these studies, another important weakness became increasingly apparent. There was a lack of operationalism, a lack of precision about how to enhance the quality of life within organizations. The problem-solving and decision-making processes necessary to move from X to Y, from inauthentic to authentic, were not spelled out in concrete terms.

There was another lesson learned from this exercise. As attempts were made to spell out the necessary sequence of activities to operationalize the humane dimensions, it became clear that this could not occur without relating these activities to the rational and technical aspects of organization. For example, an individual could take more

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initiative if he understood and had influence over the design and use of budgeting and financial processes. Individuals could free themselves from much routine to work on meaningful tasks, if they could develop more effective computer programs for the routine activities in their organizations. Individuals could increase their sense of essentiality and competence if they developed long-range plans that helped the organization become more of a master of its own fate and a designer of its own future.

The problem, however, was that budgets, financial analyses, computer programs, and long-range planning strategies were designed to utilize processes that inhibited more than facilitated self-realization and growth. Moreover, there seemed to be little felt need among the scholars in these fields to explore how concepts and insights from the behavioral sciences could be used to influence their models and their operational procedures.

The objective of this article is to help stimulate such a need by focusing on some of the limits of organizational theory based on rational man. Hopefully, if the argument rings true for readers (with either humane or rational interests), they may deem it appropriate to consider more seriously research that begins to build bridges.

This article is therefore conceived as a plea to the rational-man theorists to consider more seriously the variables found in the behavioral science research focusing on human realization and growth within organizations. A similar report would be useful in which the representatives of the rational-man theorists could identify areas in which the scholars interested in self-actualization could gain by placing more attention upon the cognitive and intellectual variables. My own efforts in this area are primitive. They focus primarily on developing processes of human growth that are much more heavily cognitive and intellectual than is the present norm in the experiential learning literature and in developing knowledge about making management information systems (and more recently financial analyses) more effective by including human variables (Argyris 1971).

The article begins with an exploration of the work of researchers such as Simon, March, Allison, and Steinbruner. Once this analysis is made, four major types of predictions will be identified that cannot be made by rational-man theory, although all are central to the domain that the theory

purports to cover.

The major additional flaw of rational-man theory, it will be suggested, is that its view of human nature and its conceptions of what is good theory (i.e., descriptive and not normative) combine to prevent the testing of some of its implications, to maintain the status quo in the real or non-contrived world, thereby insuring the limited scope of the theory and simultaneously making it difficult to develop sites where competing organizational theories may also be tested.

### Rational Man and the Nature of His Organization

We begin with Simon's view, which is the original and still one of the most sophisticated. His position may be summarized as follows:

A. Man's capacity to process information and solve problems is finite. But the environment is extremely complex (Simon 1957, 1969). In fact it is so complex that man cannot make decisions without having constraints imposed upon his environment to help make it manageable.

It is therefore impossible for the behavior of a single, isolated individual to reach any high degree of rationality. The number of alternatives he must explore is so great, the information needed so vast, that givens or premises must be created and accepted if he is to behave rationally (Simon 1959, p. 79).

B. Man manifests docility; he is teachable and shows strong interest in learning. Furthermore, man strives to give his behavior—indeed his life—some sense of organization, plan, or patterning. The primary mechanisms are (1) substantive planning: making decisions regarding the values to which he is going to direct his activities; the general methods he is going to use to obtain these values; and the knowledge and skills he will need; (2) procedural planning: designing and establishing mechanisms that will direct his attention in such a way as to cause the specific day-to-day decisions to conform to the substantive plan; and (3) executing the plan through day-to-day decisions (Simon 1957, pp. 96-97).

C. Man can partly determine the content of the planning. However, "...to a very important extent...it is an *organizational* matter" (emphasis added). One function that the organization performs is to place the organization members in a psychological environment that will adapt their decisions to the organization objectives, and will provide them with the information needed to

make these decisions correctly (Simon 1957, p. 79).

D. The first step the organization takes to create this psychological environment is for the administrators (the people in power) to define the organizational goals. The second step is for the administrators to design the givens and the premises in the environment so that the individual will approach as close as practicable to rationality (that is, behavior that strives to achieve the organization's goals)(Simon 1957, p. 240).

E. One way to guide man toward rational behavior is to capitalize on man's characteristic for developing substantive and procedural plans. The primary mechanisms of organizational influence are:

1. Dividing work and assigning tasks.
2. Establishing standard practices.
3. Transmitting decisions downward through the hierarchy by establishing systems of authority and influence.
4. Providing formal and informal channels of communication running in all directions through which information for decision making flows.
5. Training and indoctrinating the members. The organization "injects into the very nervous systems of the organization members the criteria of decision that the organization wishes to employ." The organization member acquires knowledge, skill, and identifications or loyalties that enable him to make decisions, by himself, as the organization would like him to decide (Simon pp. 102-103).

Why should individuals accept these organizational mechanisms of influence?

F. Behavior in organizations, as far as it is rational, is governed by the system of authority in the organization (Simon 1957, p. 149). Thus one reason that people accept the organizational goals and the mechanisms of organizational influence is that they accept organizational authority.

However, Simon points out that formal authority requires a willingness on the part of the participants to accept the influence of the authority. How does one get individuals to be willing to submit to organizational authority and mechanisms of influence?

G. By designing organizational participation that contributes directly or indirectly to the participants' personal goals. The contribution is direct if the goals of the organization have direct

personal value for the individual. The contribution is indirect if the organization offers personal rewards—monetary or other—to the individual in return for his willingness to contribute his activity to the organization (Simon 1957, pp. 110-111).

*Organization based on rational man administrative theory is similar in important respects to the organization of traditional administrative theory.*

The first point that impresses one about Simon's view of organization and administration is the central and dominant role that they play in designing and controlling human behavior. In Simon's organizations, it is management that defines the objectives and the tasks, management that gives the orders downward; it trains—indeed indoctrinates—the employees; it is management that rewards and penalizes.

The basic properties of formal pyramidal structures (specialization of tasks, centralization of power and information) are not altered. This concept of organization does not appear to be significantly different from the traditional administrative theorists. In less precise and systematic language, the traditional administrative theorists created views of organizations and administration that were not much different. In their works, management was in control, management defined the organization's goals, management defined and assigned tasks, management defined standards, management gave orders, management made men think and behave as the organization wanted them to behave. It is organizational structures such as these that lead to organizational entropy, ineffective decision making, especially on the important decisions (Argyris 1964, 1970; Likert 1967).

Indeed, in some ways, Simon goes further in making it explicit that it is management's task to inculcate the organization's values and objectives into the behavior-producing forces within the employees. For example, Simon states that it is management's responsibility to inject "into their [employees'] very nervous systems" the desired objectives and the criteria to be used to judge if these objectives were met. How would such a program of indoctrination occur without impinging on the deepest aspects of affect available to the participants? How can Simon imply that some employees would not resist—indeed resent—having their nervous systems so directly managed? The answer is that the conception of indoctrination as a rational and psychologically benign process is possible if man is viewed as being intendedly

rational. There is little conceptual space for such furniture as emotions, self-control, and autonomy in the rational man household. Man, in Simon's theory, may be proactive in his thinking activities, but he is painted as a passive factor in manifesting emotional reactions to the role of management and the nature of organization as defined above.

#### Further Exploration of Rational Man Administrative Theory

Perhaps the later works of Simon or his colleagues would suggest a view of man that is more comprehensive and potentially more proactive where the focus is more on the novel, the unpatterned, and where administration is less unilateral in its control?

Cyert, Simon, and Trow studied in detail the decision-making processes manifested by a company buying a computer. In eight printed pages of description, they reported what they believed was most relevant to understanding decision making. One way to provide the reader with a bird's-eye view of the substance of the material is to present their chart entitled, "Program Steps from Inception of the Problem to Selection of a Consultant" (Cyert, Simon, and Trow 1956, p. 245).

If one reads the narrative, one would conclude that never once was an emotion expressed, fears surfaced, win-lose competitiveness manifested, intergroup rivalries or coalition politics expressed, or mistrust created. This is not because the authors state that no such events took place. They may have taken place—indeed the observer may have carefully noted them—but what was considered as relevant to the analysis was what their theory of problem solving dictated. Thus one obtains a perceptive and clear description of search activities. But because of the theoretical perspective, there was literally no information on the actual behavior, on how people felt and responded on the impact of the organization's capacity to solve future similar problems.

One might argue that the cause of this omission was methodological. Simon and his colleagues may not consider anecdotal material valid and useful information. I question this argument because Simon has drawn very heavily and perceptively from qualitative anecdotal material in his research on the nature of problem-solving. In that field he definitely includes the individual because his theory and research strategy dictate such inclusion. In the case of organizational analysis,

#### CHART I

##### PROGRAM STEPS FROM INCEPTION OF THE PROBLEM TO SELECTION OF A CONSULTANT

Keeping-up Program (paragraphs 1 and 2 of narrative):

- Search for and correspond with experts;
- Discuss with salesmen and with equipment users;
- Search for and read journals;

Procurement Program (paragraph 3):

- Discuss applications study with salesmen who propose it;
- Choice: accept or reject proposed study;
- (If accepted) transfer control to salesmen;
- Choice: accept or reject applications proposal;
- (If rejected) switch to consultant program;

Consultant Program (paragraphs 4 through 7):

- Search for consultants;
- Choice: best consultant of several;
- Transfer control to chosen consultant;
- Choice: accept or reject proposal;
- (If accepted) begin double-check routine;
- Request expenditure of funds;
- (If authorized) transfer control to consultants;
- And so on.

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Simon and his colleagues focus on the problem-solving activities given the concept of rational man; that is he focuses on molar role behavior that is relevant to the organizational objective of buying a computer. Thus men are described as "presenting," "reviewing," "questioning," "describing," "discussing," "planning," "exploring," and "searching." No indication is given of the actual behavior in the way that Simon furnishes when describing how people solve problems.

Let us turn now to Simon's provocative *The New Science of Management Decision* (Simon 1960). The book focuses on the organizations of the future. Simon begins with the same concept of rational man and the problem-solving process (search, design a course of action, and choice) (Simon 1960, p. 2ff). Next he notes that in "...almost any kind of situation, *no matter how novel or perplexing* [emphasis added], he [man] can begin to reason about it in terms of ends and means." We note again that the same model of rational man is seen as the basis of studying and understanding the novel and perplexing and the

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assumption that man would deal with novelty in terms of means-ends problem solving.

Next, Simon discusses programmed thinking and notes that habit, standard operating procedures, and organizational structure help create conditions for programmed decisions (Simon 1960, p. 10ff). Unlike the earlier works, however, there is a stronger emphasis on nonprogrammed decision making. Simon begins by noting that little is known about these issues. He suggests that man deals with nonprogrammed decisions first by orderly thinking (e.g., estimate of the situation), better selection of men who are better at such problem solving, more education, and job rotation. Again there is a similarity with the earlier view. Simon appears to make rational activity the basis for effective nonprogrammed problem solving. As such he excludes intuition, spontaneity, and faith. March has pointed out, "By placing primary emphasis on rational techniques, we implicitly have rejected—or seriously impaired—two other procedures for choice: (a) the process of intuition, by means of which people may do things without fully understanding why, (b) the processes of tradition and faith, through which people do things because that is the way they are done" (March 1971, p. 3).

Simon then reminds the reader of Gresham's Law that programmed activity tends to drive out nonprogrammed activity. When asked why this is so, the answer is that it is because prolonged unstructured situations are painful (Simon 1970, pp. 12-13). There are two problems with this reply. First, it lacks an operational definition of "prolonged" and an explanation of why unstructured situations may be painful. If we knew more about the latter, perhaps conditions could be defined under which man's tolerance for unstructured situations could be significantly increased and his pain decreased, the operational definition of significantly being that he would now consciously fight Gresham's Law. T groups (*not* encounter groups) that focus on the interrelationships between interpersonal relations and task achievement (Argyris 1968) could be a useful thing in which to study those issues and perhaps a technology with which to bring about some of these changes.

Second, it tells us little about the interpersonal, group, intergroup, and organizational factors that encourage man to "play it safe," "don't rock the boat," "cover your ass," "create fires for others to keep them busy while 'one'

fights key crises" (Argyris 1962, 1971).

Next, Simon informs the audience that there is now good reason to believe that the processes of nonprogrammed decision making will soon undergo "...a fundamental revolution...because of basic discoveries about the nature of human problem-solving" (Simon 1960, p. 21). He predicts that subconscious or emotional variables are not as important as we think. "Perhaps the complexity of the problem-solving process that makes its outcome so impressive is a complexity assembled of relatively simple interactions among a large number of extremely simple basic elements." Perhaps, he notes, we invent terms like intuition and insight in order to understand human behavior, but all we do is invest the whole process with mystery (Simon 1960, p. 23).

Basically, Simon suggests an organization that will not be much different in underlying properties from traditional organization. There will still be a hierarchy and task specialization. The degree to which information is decentralized may vary. However, Simon seems doubtful about any significant degree of decentralization, especially at the middle management levels, because he finds such activity may increase the problems of motivating individuals and may be, from a rational man's point of view, unnecessary if not unwise, given the new management information technology.

### Rational Man and the Behavioral Theory of the Firm

Let us now examine a major work of two colleagues of Simon, Cyert and March's *The Behavioral Theory of the Firm* (Cyert and March 1963). We find that the same views of man and organization are still preponderant. The basic pyramidal system still applies. Management is still in control, still writing the major programs, and people are viewed as members in coalitions (departments) politicking against each other.

Cyert and March go beyond the traditional administrative theorists. They ask more questions about how an organization actually defines organizational goals, expectations, and choice, and how one reduces the discrepancy between executive choice and how the decisions are implemented by those below the executives (organizational control) (Cyert and March 1963, p. 21). Human beings are seen as influencing goals because as new people enter the organization they evoke new problems and develop different aspiration levels (p. 116).

More important to understanding the intendedly rational view of the nature of organization is to focus on what Cyert and March describe as the "heart of their theory," that is, their rational concepts (p. 116). Taking a behaviorally oriented view, they see organizations as composed of coalitions bargaining with each other; and where intergroup conflict is only quasi-resolved; and where people are searching within limits of the internal nature of the system, its goals and norms; and where organizational learning is minimal (pp. 116-127). With these concepts in their model, they are able to make more accurate predictions about such behavior as price determination.

The unintended consequences of this theorizing is to maintain the status quo. Not only does this view accept the power structure, the specialization of tasks, the managerial indoctrination, but it also accepts *as givens* the dysfunctional consequences of the above, namely, quasi-resolution of conflict, uncertainty avoidance, biased problemistic search. A self-actualizing view would see these as variables to be altered because they tend to inhibit growth orientation and effective thinking.

I believe that Cyert and March would respond that they do not accept these variables as givens. Parts of their theory have important implications for altering these variables. If people had better information, more complete information about their behavior, they would perform more rationally.

There are two responses that come to mind. First, why should an organizational theory limit the modes by which behavior can be made more rational to those that are based on providing more information? Are there not limits that people manifest in how much valid information they will give if they have fears, express mistrust and feel mistrusted, tend to conform, and fear risk-taking? The very concepts of rationality and mechanisms of organizational influence that are being propounded are at the heart of why organizations tend to produce valid information about the unimportant problems and invalid information about important issues (the whole Mylai affair and the discussion at the White House level on the Vietnam War are just the most recent examples) (Argyris 1970, pp. 56-88). Why isn't there any emphasis upon rational behavior that confronts, alters, modifies the mechanisms of organizational influence?

To the writer's knowledge, the rational man

adherents do not consider these questions seriously. Simon has told the writer that these questions verge on the moralistic. They take a position on how the world ought to be. Science focuses on describing how the world actually exists.

Such a response misses two important problems. First, an "is" statement becomes an "ought" statement if anyone uses it to generate administrative behavior. Thus if someone asked a manager why he had "mechanisms of influence" he would respond, because he ought to have them. Why ought one to have them? Because that is the way to influence and canalize behavior? Why is this the only way? It may not be, but the researchers who focus on "my kind of man" (rational man) do not speak of any other way to organize human effort. They do not because they do not conceive that to be their task. They view their task as developing a descriptive theory of organizational behavior.

The second problem is that as the mechanisms of organizational influence and the concept of rationality become inculcated into the nervous system of individuals, then they will tend to produce more people manifesting and supporting these values. Thus the descriptive theory may not take a normative point of view but, in the hands of practitioners, it becomes an important map for designing the future and acculturating our people.

### **Rational Man and Organizations as Political Systems**

Recently Allison has written a book which goes beyond the issues considered to date. Briefly, Allison suggests that decisions can be analyzed at three levels. Level I considers the decision makers as rational, attempting to maximize certain values where alternatives are carefully assessed and choices are made rationally. Although this provides insights into understanding decisions, Level I is a very limited view of reality, and at times, makes incorrect predictions. Level II views a decision as made by a working-bureaucracy in the Simon tradition. Although Allison shows how this enlarges our understanding of decision making, he also shows how such a view is incomplete and could make incorrect predictions.

Level III goes beyond the formal organizational roles, rules and standard operating procedures, sequential attention to goals, and problem-directed search. Level III conceptualizes the actors as players in "a central, competitive game" whose

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name is politics: bargaining along regularized circuits among players positioned hierarchically within the system in question. Moreover the amount and nature of the responsibility men shoulder influences what they see; how they hear; what actions they take (1971, p. 144). "The players are also people. The core of the bureaucratic politics mix is personality. How each man manages to stand the heat in his kitchen, each player's basic operating style, and the complementarity or contradiction among personalities and styles in the inner circles are irreducible pieces of the policy blend. Moreover, each person comes to his position with baggage in tow, including sensitivities to certain issues, commitments to various programs. . ." (1969, p. 709). Here we have a clear-cut commitment to the relevance of the emotional, defensive, competitive behavior of man that is so often observed in the noncontrived world.

Although Level III is an attempt to become more comprehensive (by including all three levels of analysis), it stops short of defining a more comprehensive model of man. In Level II where organizational processes are central, Allison is able to make explicit a model of bureaucracy. In Level III, where personality is "the core of bureaucratic politics," no attention is paid to developing a concept of man to help us understand the emotionality, the baggage, personal commitments that Allison so skillfully shows influence decision making. Although Allison is careful to include "new" aspects of man's behavior, he does not include concepts (a model of man) to help us explain the behavior.

There are also some important limitations in the Allison model in terms of being of help to the practitioner. Allison identifies many examples where interpersonal and intergroup factors played a key role to reduce the effectiveness of decision making. For example:

1. McNamara's mistrust of Admiral Anderson's management of the blockade (1969, p. 707).
2. Fears that each service had revolving around organizational jurisdiction.
3. The hesitancy of anyone to alter MacArthur's orders because "everyone thought someone else should go" (1971, p. 152).
4. The belief held by some that no one knew how McGeorge Bundy thought, including the President (1971, p. 196).
5. Why and how "natural reticence" and

"soft-spokenness" among and between the participants combined with a moderate portion of misperception and confusion led to inaction when the President and the group were in agreement on the substantive issues (1971, p. 153).

Given Allison's analysis, there is little that can be done when McNamara feels a sense of mistrust of Anderson's management except the tense and terse confrontation (which he describes) between the two men. Nor would his theory of administration lead to the services openly discussing their intergroup rivalries. Nor would anyone, following his analysis, be led to consider openly discussing his fears and hesitations about confronting MacArthur.

One wonders what would happen if Allison's theory were developed so that derivations could be made about the open and effective discussion of these interpersonal and intergroup issues.

Certainly, there is research to suggest that the interpersonal and group dynamics aspects of organization are crucial in understanding the "new" human behavior which Allison documents. For example, man, in our society, is programmed to create interpersonal relationships that are competitive, win-lose, where there is little overt openness about and concern over interpersonal feelings, where trust and a sense of individuality were low (Argyris 1968). These are all behaviors that Allison relates to the model of organizational politics. But people behave this way even when they are placed in group settings that are designed to encourage the opposite behavior; even after these individuals choose to alter their competitive behavior; even after they develop group commitment to such changes (Argyris 1962, 1968).

This does not mean that it is wrong for Allison to relate such behavior as competitiveness to the organizational politics model. It may mean that the behavior is caused by more than one level of variable (a position which Allison accepts by developing three levels of causality). Thus, if we are to describe more fully the essence of a decision, we would need to develop a model of the human personality, of interpersonal relations, and group dynamics that relates these variables to actual decision-making processes (which might be called Level IV). Unless these variables are included, there is serious question whether man will ever be offered a theory that would help him to change those aspects of organizational politics that he wishes to change.



Another recent contribution to decision making illustrates this problem. Steinbruner has attempted to make explicit the nature of problem solving that goes on under analytical and cybernetic modes of thought (Steinbruner, in press). In doing this he makes an important contribution to cognitive thinking and social psychology. He goes beyond, however, to ask: what are the conditions under which each of these modes of thought may be used in real life (in his case in foreign policy definition and management)? He finds that, given the degree of pressure, complexity, and lack of valid information available to the decision makers, it is understandable why they tend to select and use cybernetic models of thought. The cybernetic model is more functional to the reality of the blooming-buzzing-confusion of the noncontrived world.

When asked what mode of thought would be more effective, Steinbruner chooses the analytical mode of thought because of its focus on examining carefully the trade-offs between courses of action. But he sees little hope for this mode becoming functional, given the low level of trust between nations and within the nations, as well as the pressures and low level of trust among competing bureaucratic institutions. Nevertheless, he does agree that analytical modes of thought may have a respectable degree of survival if practitioners realize that (1) they require a clear blueprint of the environment which (2) is very expensive, and given the present nature of reality, will not be obtained unless (3) the analytically oriented group is supported and permitted to conduct experiments where their model can be refined without (4) having to become immersed in the coalition-in-group-politicking Allison and he have so thoroughly documented.

Several points are relevant to our discussion. Steinbruner does not discuss how to begin to alter the present decision-making environment to encourage analytical thinking partially because his model of man is a cognitive problem-solving one. This leaves the reader with the conclusion that again social science research becomes identified with the status quo.

But, one may ask, how realistic is it to think that the environment can be altered in such a way that, for example, trust is increased? The answer is, not very realistic if we accept the present reality as given and, as in the case of many social scientists, conduct that research which, in addition to enlarging our map of what is, adds still more

nails to the coffin of what the world might be. Doob (1970) eloquently describes the difficulties in getting supposedly innovatively oriented foundations to support such research. He (Doob) and others (Kelman 1971, Walton 1970) have provided evidence that disputes deeply ingrained in human beings of competing and warring nations can be ameliorated by using the technology derivable from Level IV.

The discussion above has focused on the relevance of Level IV to understanding decision makers' behavior. Level IV can also be relevant for understanding the behavior of individuals at the lower level. Thus one may begin where Simon does, namely, that is the task of the administrators to define goals, the paths to the goals, to set standards, to inculcate in participants what should be central and peripheral. A model IV analysis would then ask what is the psychological impact of such behavior? There is evidence that such action by management would produce the results Simon suggests. There is also some evidence that it tends to produce feelings of submissiveness, dependence, psychological failure, and short-time perspective.

#### **Limitations of the Rational Man-Political System View**

##### **A. Some Limitation of Rational Man as a Model Man**

Basically, the intendedly rational-man concept places primacy on rational behavior; that is, a procedure for deciding what is correct behavior by relating consequences to objectives (March 1971, p. 3). Thus the spontaneous and unorganized becomes understandable by relating it systematically to a means-end analysis. This has the consequence of making the spontaneous, mechanical and predictable, the unorganized, organized.

Another consequence is that it influences what is observed and what is considered important. Thus feelings, as we have seen in the detailed case of decision making above, are neither observed (or reported), nor are they considered important in understanding decision making. Simon, in his second edition of *Administrative Behavior* (1957, p. xxiii), laments about the tendency in social psychology, citing the works of Bruner, Asch, and Bales (three more cognitive psychologists) to "...reduce all cognition to affect." "The past

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generation of behavioral scientists has been busy, following Freud, showing that people aren't nearly as rational as they thought themselves to be. Perhaps the next generation is going to have to show that they are far more rational than we now describe them as being. . .but with a rationality less grandiose than that proclaimed by economics" (Simon 1957, p. xxiii).

The focus on rationality also emphasizes the behavior that is consistent with present beliefs and tends to ignore intuition and behavior that suspends rationality and dependence on current beliefs. The point can be illustrated by comparing the way Simon and Maslow view habits (which is a concept that focuses on predicting future behavior by assuming consistency with past behavior). Simon views habits as important as memory, assisting in the preservation of useful behavior patterns (Simon 1957, pp. 87-88), while Maslow warns that habits are simultaneously necessary and dangerous, useful and harmful. They are the prime weapon of adaptation and yet they hinder adaptation. In the long run they are antonyms of fresh unrubricized thinking (Maslow 1957, p. 217).

The consequence of intendedly rational man concept, in short, is to focus on the consistent, programmable, organized, thinking activities of man; to give primacy to behavior that is related to goals; to assume purpose without asking how it has developed. Man, as a person who feels, experiences chaos; manifests spontaneity; becomes turned-on without planning it or being able to explain it in terms of consistency of conscious purpose; thinks divergently; and who may strive, at time, to separate himself from his past, is not the primary concern of the intendedly-rational-man organization theorists.

One of the consequences of this limited view of man is that those employees who may value growth (this includes an increasing proportion of our youth) will not find a hospitable environment in such an organization. An individual oriented toward growth would have great difficulty in obtaining any of the inducements identified by Simon (1959, p. 111) except such inducements as money, power, control. The self-actualizing individual would tend to view these factors, at best, as hygiene factors which, as Herzberg suggests, do not motivate; they just reduce dissatisfaction (Herzberg 1966). (This indicates that deficiency-oriented individuals can exist in an organization that encouraged self-actualization but the reverse is not the case.)

Simon might respond by pointing out that he has separated the choice of participation and contribution. Man will remain in the organization if the satisfaction he derives from the net balance of inducements over contributions (measured in terms of their utility to him) is greater than the satisfaction he could obtain if he withdrew (Gross 1964, pp. 185-187). Thus self-actualizing man might choose to leave.

But where can he go? Most organizations are designed with rational man in mind. Moreover, if he remained, self-actualizing man might find it necessary to begin to suppress or lower his level of aspiration about the probabilities for obtaining self-actualization. In order to live with this new rational decision, self-actualizing man could come to question the validity of holding a growth orientation while in organizations. Once he has suppressed the value of self-actualization, then its utility would be reduced. He may then remain more easily in the organization. One therefore cannot point to the fact that people remain in the organization as evidence of genuine fulfillment of self-actualizing needs or evidence of their unimportance.

A second response that Simon could make is that he views the fulfillment of personal goals in the widest possible sense. He cites "world peace" or "aid to the starving Chinese" as examples that go beyond money or other hygiene factors in motivating participants (Simon 1957, p. 111). The point being made, however, is that, given the mechanisms of organizational influence and the concept of rationality defined above, the individual whose personal goal was self-actualization would have great difficulty in obtaining its expression. Thus we begin to see how a Simon-pure (non-normative) organization is not so pure. It would tend to exclude self-actualizers.

#### B. Concept of Organization: Focus on Status Quo

If, as Simon has stated, the concept of man is critical to the design of organizations, then it would follow that organizations based on this concept will tend to be focused more on what is than on what might be. As the Romans have stated,

Holding that choice is free and that decision-making is the crux of organizational achievement, we cannot appeal to any kind of social order in which past events determine future contingencies. *Prediction based on regularities in social behavior can be reliable for habitual, conventional behavior, and folkways, but not for creative contingency planning or for organization's building its own future* [emphasis added] (B. and S. Rome 1971, pp. 1-2).

To illustrate, let us ask how the writers discussed above would alter the organizational and political-system variables that they have defined as central to their theory. How would one alter the organizational standard operating procedures, the mechanisms of organizational influence, the structure of the games, the political in-fighting, the win-lose dynamics?

As we have seen, the primary response would be to focus on new structures and organizational mechanisms that are even more rational and consistent. The best example would be sophisticated information processing systems. No doubt these systems will work especially during the early stages (because they are focusing on the more programmable and because of the dry rot in organizations). However, as the honeymoon period ends, the designers of information processing systems will have to face the facts that what they have done is raised the intensity of rationality by several magnitudes and thereby have compounded the problem that we have identified. (This may be rational behavior for the information science experts whose unconscious purpose may be to create a world with minimum expression of feelings.) (Argyris 1971)

Some may point out that there is nothing inherent in the concepts of rational man administrative theory that prevents the design of other types of changes. My view would be that—as Simon would predict—the model of man would significantly influence the kinds of organizational changes considered as well as the process of change to be used. Concerning the latter, management would be in charge of the change. Concerning the former, one might infer that the thrust would be to look toward making some modification in the organizational structure, policies, and practices that would appeal to rational men which, if followed, would reduce the dysfunctional aspects of these variables. All these strategies imply a bias of change processes controlled by the top and leading to organizational changes that do not alter significantly the underlying properties of organization.

But, the reader may respond, what is to prevent someone with a Simon view to have the members participate in designing their changes? After all, March and Simon have acknowledged the importance of participation in their systematic review of the literature (March and Simon 1968).

The answer is that nothing could prevent them. The prediction made from the analysis

would be *if* they did attempt such a strategy they would tend to design a program that was basically in line with their concepts of man, organization, and decision making. Since their concepts have little concern with equalization of power, focus on relevant interpersonal issues, then the prediction would be that they would be viewed (by the recipients of their strategy) as basically manipulative. For example, since man is conceived as intendedly rational, then such variables as feelings, issues of interpersonal mistrust, conformity, and antagonism will not be included. Yet they are of central concern if the changee is to design, manage, and execute his own changes. Similarly, if the changee is to minimize the probability of his being controlled by management through such mechanisms of organizational influence as Simon has defined. It is difficult to test these predictions because of the scarcity of published studies. One possibility is an early article by Simon and Devine (1941). Simon and Devine describe a program which they designed and executed to train members of the organization to subordinate their primary loyalties to those of the larger organization (Simon 1957, p. 41). The diagnosis made shows explicit attention and sensitivity to the psychological and social needs of employees that may operate to lead them to resist the experiment.

However, when one reads the description of the change processes used, one obtains the impression of a rational approach where Simon and Devine were primarily in control and “selling” the experiment through rational means. For example, they state:

...it is necessary to “sell” the workers on the experiment being conducted in order to prevent their lapsing into a state of hostility and non-cooperation toward it. To this end, workers . . . were given a series of talks to explain the purposes and importance of the experiment in which they were participating. It was found that they were particularly receptive to an explanation of the significance of the study given by an individual outside the agency whose prestige and reputation were very high with them. Undoubtedly these explanations and discussions of the methods, purposes, and significance of the experiment stimulated the workers and brought out a degree of cooperation that could not otherwise have been expected (p. 491).

There is another difficulty created by this point of view in bringing about change. There is reason to believe that once people live in a world of organizational politics with low openness, trust, risk-taking, and high conformity to power, then the probability is low that they will provide

"outside" consultants with all the information that they have available to them. They will tend to withhold the politically sensitive information (Argyris 1971). More importantly, after living in such a world for many years, the individuals may even lose their awareness of the importance of certain variables and therefore be unable to report them. And to complicate the already over-complicated, it is possible that participants can have so internalized their system's values that they might be aware of the interpersonal variables in *others'* behavior but not their own (Argyris 1962, 1965), or aware of it in the behavior of others in other systems but not individuals in their own system. The writer found many examples of this in the Department of State (1967).

### C. Inability To Make Important Predictions

The rational-political view of man is unable to make certain crucial predictions that are central to its domain.

The first prediction is related to a natural outgrowth of administrative theory and the concept of rational man. I refer to the development of management information systems (MIS). The prediction that would be made from the Simon theory is that rational man, effectively influenced by the "mechanisms of organizational influence" and fairly paid, would not tend to fight MIS other than on grounds that they are not, in some sense, good enough to help rational man achieve the organization's objectives.

Recent research, however, suggests that managers may fight the MIS, especially when they are effective in helping them to achieve their objectives, because the use of the system reduces the role of their intuition, reduces their space of free movement, increases their experience of psychological failure (Argyris 1971). However, a theory in which the concept of self-actualization is central would predict *a priori* such resistances.

The second prediction that a rational man view would not make is related to the anger, hostility, and aggression of the youth toward being "bought off" (from their view) to be rational men and to agree to the mechanisms of organizational influence. Maslow has hypothesized that as a society becomes more affluent and the physiological and security needs are met, the individual will seek to express "higher order" needs which he categorized as self-actualization. These needs were related to such activities as initiative, personal causation, creativity, and risk-taking. Such predictions which

McGregor made years before they became deafening realities were based directly on Maslow's concepts of hierarchy of needs (1960).

A third limitation is the inability of the theory to predict what has begun to be documented in recent research regarding the use of the concept of "satisficing man." The concept was created by Simon to describe more accurately man's actual problem-solving capacities. It was unrealistic, he maintained, to assume that man would maximize or even optimize. The best he could do was to find a satisfactory decision.

Levin (1970) recently documented the use of the concept of satisficing by bureaucrats to explain away the "naturalness" of their low level of aspirations, their bureaucratic bungling, their coalitions, and their intergroup rivalries. It is understandable, he maintains, that they do this because they are being rational and "satisficing." The use of satisficing in this sense, although it does not represent Simon's intentions, could be predicted from the dysfunctional world described by Argyris (1962, 1965) when people (at the managerial levels) adhered to the values implicit in the mechanisms of organizational influence defined by Simon.

The fourth limitation flows from the combined action of the first three limitations. Given the inability to predict the emotionality against rationality and the aggression against rational man and organizational mechanisms of influence, and given the (unintended) support of the status quo and use of satisficing to rationalize incompetence, then there is an interaction of forces that make change in organizations seem hopeless, if not impossible. How does one arrive at this conclusion? The argument is as follows:

1. To the extent man accepts his "inducements" to behave rationally, he becomes a passive individual *vis-à-vis* the way power, information, and work are organized in the society and who is responsible for such organization.

2. Over time, such individuals resolve their self-actualizing tendencies by any one or a combination of suppressing them, denying them, or distorting them. They may soon come to see their legitimate role in the organization (in relation to the design of power, information, and tasks) as pawns rather than as origins. Their sense of being an origin and their feelings of personal causation will tend to be low.

3. Assuming that organizations survive, then the members soon come to view themselves as



being pawns, being passive and being controlled as "good," "natural," "necessary"—indeed they may eventually define loyalty and a sense of responsibility and maturity in these terms (Argyris 1960, 1971b).

4. Individuals soon create managerial cultures where the discussion of these possibilities is seen as inappropriate (Argyris 1969, 1971b).

5. The youth, who see the results within their families, and who are able to focus more on the self-actualizing needs (because of the very success of the system), will soon attempt to change the situation. However, given factors 1-4, they will be terribly frustrated.

6. The frustration will tend to lead to regression and one form of regression is to withdraw (communes) while another is to aggress (militancy).

7. Since little empirical research or tested experience is available to indicate how the self-actualizing activities and the rational activities can be integrated, the youth hostility is seen as unfair by the older people or their withdrawal as a cop-out.

#### The Importance of Normative Theories of Human Behavior in Organizations

Research that attempts to develop descriptive generalizations about the human side of organization will inevitably, if used by human beings, take on a normative character in two ways. Once people follow the implications of descriptive generalizations, they become normative. Thus, the fact that frustration leads to aggression was used by a black militant to explain, account for, *and justify* his behavior. As he told his confronters, it is natural for him to aggress because he has been frustrated. According to behavioral science knowledge, he ought to behave in this manner.

If descriptions of what "is" become what ought to be, then what used to be "is" will become a state of affairs toward which younger people may be acculturated or indoctrinated. People behave in ways that approximate their learning and the generalization which began as descriptive statements may become a self-fulfilling prophecy.

The writer recently illustrated this consequence by the concepts of dissonance and attribution. These two concepts are central in modern social psychology. Consequently they occupy central positions in textbooks. One can

show empirically that the interpersonal world of most people in ongoing organizations is characterized by much more mistrust, conformity, and closedness than trust, individuality, and openness. This world, called pattern A, can be shown to be consonant with, if not derivable from, the values about effective human behavior endemic in the pyramidal structure, or in what Simon calls the mechanisms of organizational influence. The predictions from dissonance or attribution theories can be readily confirmed in this pattern A world. Thus, findings based on descriptive research will tend to opt for the status quo. Recently, the writer has shown that in addition to social psychology, this trend seems to be manifested in industrial psychology (1972b) and in the work of many industrial and organizational sociologists (1972a).

However, if one creates a new pattern which admittedly is very rare in the everyday world where trust, openness, and individuality are able to predominate, then the same predictions are no longer readily confirmable. To put this another way, if our universe had been mostly pattern B, dissonance and attribution theories would probably not be the central concepts they are in descriptive social psychology today. Thus if students "learn" that it is natural to deal with post-decisional events by reducing dissonance, then they will begin to behave in these ways. The concept of man implicit in such a theory then becomes reinforced. It looks like it is "natural" because most people behave this way most of the time.

However, if it is possible to take a sub-group of such people and within a period of two weeks significantly after their behavior toward pattern B, in a T group for example, then the "natural" characteristic of consistency-seeking or dissonance reduction cannot be as basic as we thought.

Why is this the case? Is man that shallow? The answer is just the opposite. Man shows profound capacity to learn to behave in many different ways. Our social science universe is not like the physical science universe which is "out there" waiting to be understood, which, in the process of being understood will not change in makeup, or which will not play tricks by permitting two quite different views of man to be valid.

If the social science universe can be what we make it to be, then what is needed is a concept, a view, or an image of what the world ought to be. As this view gets developed it should be studied



and explored systematically. Descriptive generalizations are now needed, but unlike the previous strategy, a normative view is made explicit and is seen as an objective to approximate.

Where should this normative view come from? How does one develop a view that is acceptable to most people? One reply would be that the normative view should be based upon the desired potentialities of man. Man should be studied in terms of what he is capable of, not only how he actually behaves. Then, we should take the best examples that we have of human beings striving to achieve these qualities and study them and their environment in order to produce generalizations that help us to understand and increase the behavior that is preferred. Thus Maslow would take the behavior that is characteristic of rare peak experiences and make them values toward which to aspire (Maslow 1969). If one replies that such behavior is rarely observed, Maslow would agree and then ask for the systematic research to tell us how to make the behavior more frequent.

If the concepts of self-actualization of peak experiences have the meaning that is suggested, then one may raise a question about the juxtaposing of "complex man" with self-actualizing man (Schein 1965). It is difficult to see what is in the concept of complex man that Maslow has not made explicit in his own writings. For example, Schein states that man is variable; that his needs are hierarchically arranged, but this hierarchy may vary in different situations. Maslow has written, "almost every human being has a tendency to grow toward self-actualization *but it is just as true* that every human being has a trend toward regression, toward fear of growth, toward *not* wanting self-actualization" [italics his] (Maslow 1965, p. 31).

However, there may be a difference between Schein and Maslow that is important. In addition to making some organized sense out of the concept of personality, Maslow wanted to focus on man's potential. To Maslow, man was not completely described by analytical concepts which took no position as to where man was going. He might ask Schein, for example, "What do you have to say about how man organizes and manages his complexity? If man is a finite processing system, then how does he cope with his complexity?" Maslow's answer would be that he develops some long-range substantive programs. Two major types of such programs are growth orientation and deficiency orientation. These are very complex

orientations which Maslow shows influence man's thinking, feeling, coping, designing, and managing his life. He would then maintain that a good deal of an individual's behavior forms a pattern around these substantive programs; it is a theme that runs through much of his work-family-play life.

The issue therefore is not so much that self-actualizing man is less complex. The underlying difference is that Maslow takes a position about what ought to be and then strives to define strategies to make this position become reality. Even though self-actualization is an infrequent experience, this does not deter Maslow. He would agree and ask how organizations could be redesigned to increase the frequency of self-actualization. Maslow's view is more like the one held by health officers. For example, individuals with absolutely no cavities are extremely rare, yet dental health scholars conduct research with this goal in mind.

Is this not a rather confident, if not arrogant, stance? Why should men be required to actualize themselves? There are three responses to these important questions. First, there is no intention of requiring self-actualization. Such a strategy violates the heart of the concept. The intention is to create more opportunity for self-actualization by designing new forms of organization and creating new policies and practices. The second follows from our analysis above about the role of social science concepts if they are used by individuals in their everyday life. Those concepts that are used by individuals eventually come to define reality (as in the cases of dissonance and attribution theories). *To repeat, all descriptive concepts, once they are used to organize reality and guide behavior, become normative.* The writer encountered many practitioners who spoke warmly of the concept of complex man because they had a rationale for reducing their concern about self-actualization in organizations.

The third response is that self-actualization is a broad concept that speaks about the potentiality of man. Research can be conducted to learn how to make the experience of self-actualization more frequent. But such research should also specify the methods by which these new opportunities are made available. These methods should not violate the qualities of self-actualization which include personal choice, being an origin, being responsible for one's life, being proactive and taking initiative. Thus no man is required to actualize. The goal is to make these conditions more probable. These increases in self-actualization will not be very great

unless these experiences are integrated with and designed to help the society (organization) survive and prosper.

To highlight the argument: descriptive social science knowledge will tend to become normative. This means that its generalizations will tend to become coercive of human behavior. As this occurs, the probability increases that aspects of the theory which produced this state of affairs will be disconfirmed or enlarged, while the probability that a scientist will produce (increasingly) self-fulfilling prophecies (instead of tested hypotheses) will tend to increase. One way to reduce the probability of either of these trends is to develop normative views of what the universe ought to look like and conduct descriptive research to help us understand how to achieve this world and what the unintended and intended consequences will be of such a world. One way to produce a normative position is to base it on the conception of man's potential in growth and self-actualization.

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## Models for Managing Regional Water Quality

Robert Dorfman, Henry D. Jacoby, and Harold A. Thomas, Jr., editors

This volume is the latest research report from the Harvard Water Program in the series that began with *Design of Water-Resource Systems* (HUP 1962) and includes *Simulation Techniques for Design of Water-Resource Systems* (HUP 1966) and *Stream-flow Synthesis* (HUP 1967). The emphasis is on the systems analysis of the control of water quality in a river basin or watershed. Classical methods such as low-flow augmentation are analyzed as well as novel ones such as instream aeration and piping of effluents from their point of origin to less harmful points of discharge. Particular attention is paid to the economic evaluation of the methods studied and to the resolution of the political conflicts that are likely to arise in a situation where the costs of combating pollution are borne by different people from those who benefit from the improvement. The main thesis is that the technical, economic, and political aspects of water quality management have to be considered together in the search for effective, economical, and politically acceptable solutions to the problems of deteriorating water quality. Some practical methods for integrating these diverse considerations in a systems analysis are presented. Mr. Dorfman is Professor of Economics; Mr. Jacoby, Associate Professor of Political Economy; and Mr. Thomas, Gordon McKay Professor of Civil and Sanitary Engineering — all at Harvard University. \$22.50

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